

Remarks

The Applicants have incorporated the subject matter of Claim 5 into Claim 1. Thus, Claim 5 has been cancelled.

The Applicants have also cancelled Claims 10, 11, 17 and 22.

Claims 1-3, 5-7, 9, 12-15, 17-19, and 21 stand rejected under 35 USC §112 as being indefinite. The Applicants note with appreciation the Examiner's helpful comments concerning the Markush group. The Applicants have, as noted above, incorporated the subject matter of Claim 5 into Claim 1. That has changed the language such that it cures the Markush group confusion issue. Thus, Claim 1 now recites at least one aromatic tetracarboxylic dianhydride selected from the group consisting of 2,3,3',4'-biphenyltetracarboxylic dianhydride and 2,2',3,3'-biphenyltetracarboxylic dianhydride and at least one aromatic diamine selected from the group consisting of p-phenylenediamine and 4,4'-diaminodiphenyl ether. Withdrawal of the rejection is respectfully requested.

Claims 10, 11 and 12 stand rejected under 35 USC §102 over Okamura. The Applicants have, as mentioned above, cancelled Claims 10 and 11, and amended Claim 1 to include the subject matter of Claim 5 thereby rendering that rejection moot.

Claims 10, 11 and 22 stand rejected under 35 USC §102 over Shigeta. The Applicants have cancelled Claims 10, 11 and 22, thereby rendering that rejection moot.

Claims 1-3, 5-7, 9, 12-15, 17-19 and 21 stand rejected under 35 USC §103 over Okamura. The Applicants note with appreciation the Examiner's helpful comments hypothetically applying Okamura against those claims. The Applicants nonetheless respectfully submit that Okamura is inapplicable. Reasons are set forth below.

The Applicants agree that Okamura discloses 3,3',4,4'-BPDA (or s-BPDA) and also agree that Okamura does not disclose 2,3,3',4'-BPDA (or a-BPDA) or 2,2',3,3'-BPDA (or i-BPDA). The

Applicants enclose the structural formulas of each of those three components on a separate sheet for the Examiner's convenience. The sheet reveals that s-BPDA has a symmetrical structure and yields a crystalline polymer.

This is sharply contrasted to a-BPDA which has an asymmetrical structure. i-BPDA has a symmetrical structure. However, it yields a polymer of a high molecular chain flexuosity due to the steric hindrance between the anhydrous rings. As a consequence, both a-BPDA and i-BPDA yield amorphous polymers having no ordered structure.

This means that a-BPDA and i-BPDA, which are amorphous, are clearly distinguished from s-BPDA which is crystalline. Thus, the Applicants respectfully submit that the claimed BPDAs are anything but obvious over s-BPDA since the claimed a-BPDA and i-BPDA yield an amorphous polyimide which is different from the crystalline s-BPDA. In that regard, the Applicants note that they specifically claim a highly heat-resistant "amorphous" polyimide. The Applicants respectfully submit that there would be no reasonable expectation by one skilled in the art that utilization of the crystalline s-BPDA would result in the claimed amorphous polyimide. Conversely, there is nothing in Okamura that teaches BPDAs that would result in amorphous polyimides. The disclosed s-BPDA would lead one skilled in the art to have a reasonable expectation that the resulting polyimides could very well be different. In any event, one skilled in the art would have a reasonable expectation that the Applicants' claimed BPDAs would likely result in a different polyimide from that produced by utilizing the s-BPDA of Okamura. Withdrawal of the rejection is respectfully requested.

It should also be noted that there are still further reasons for differentiating Claims 1-3, 5-7, 9, 12-15, 17-19 and 21 over Okamura. Not only do the Applicants employ a-BPDA and i-BPDA instead of s-BPDA, the Applicants employ aromatic diamine selected from p-phenylenediamine and 4,4'-diaminodiphenyl ether. This combination yields a highly heat-resistant polyimide that is not

disclosed, taught or suggested by Okamura. Withdrawal of the rejection for this additional reason is also respectfully requested.

Claims 1-3, 5-7, 9, 12-15, 17-19 and 21 stand rejected under 35 USC §103 over Shigeta. The Applicants again note with appreciation the Examiner's detailed comments hypothetically applying Shigeta against those claims. However, the Applicants respectfully submit that, like Okamura, Shigeta is limited to disclosure of s-BDPA and not the claimed a-BDPA or i-BPDA. As a consequence, Shigeta is inapplicable for the reasons set forth above with respect to Okamura. Withdrawal of the rejection is respectfully requested.

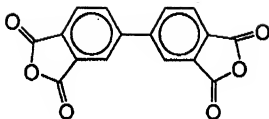
In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,

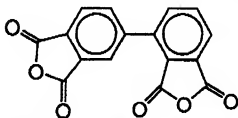


T. Daniel Christenbury
Reg. No. 31,750
Attorney for Applicants

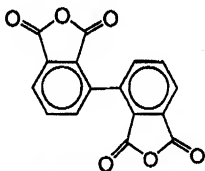
TDC/vp
(215) 656-3381



3,3',4,4'-biphenyltetracarboxylic dianhydride



2,3,3',4'-biphenyltetracarboxylic dianhydride



2,2',3,3'-biphenyltetracarboxylic dianhydride